

ABCC11 MTR KRTYMWPNSS GGLVNVRGMLI QDDMNSGGLY KTYLQCEP SQERNPWGLI GBAVPPWCK YDANLRTWIP FRPKRPFAP QLDNAGLS
 ABCC12 -----
 ABCC5 MKDIDIGKEY TIPSPGYRSV RERTSTSGTH RDREDSKFFR TRPLEQDAD EAAEAGLS LDASHSQR ILDEEHPKGK YHGLSALKP IRTSKHQ . HFDNAGLFS

ABCC11 YLTWSWLTPL .MISOISRSRL DENTIPPLSV HDASDKNQQR LHLWEEEVs RRGIEKASVL LVMRLFQORT LIFDALLGIC FCIASVLGPI LIIPKILEYs BEQLGNVWVG
 ABCC12 FATEFSWTPV .WVKGFBORL TDTLDPPLST YDSSDTNAKR FRVLMDDEVA RVGPEKASLs HVWKFQORT VLMDIVANL CIIMAAGPV ILIHOILOQT ERTSGKUWVG
 ABCC5 CMTFSWMLSL ARVAHKGEL SMDVWLSLK HESSDVNCR LERLWQEELN EVGDAASLR RVWIFCRTR LILSIVCLMI TQLAGFSGPA FMVKHLLEYT QATESNLQYS

ABCC11 VGLCFALFLS ECVKSLSFSS SWIINORTAI RFRRAVSSPA FEKLIOPKSV IHTISGEAIS FFTGDNVLF EGVCYGPVL ITCASLWICS ISSYFLIGYT AFAIALCYLJ
 ABCC12 IGLCIAFAT EFTKVFPAW AWAINTRTAI RLKVALSTLV FENLVSFKTL THISGEVLN ILSSEVNLN EAAVGSLLA GGPVVAI LGM IYVILGPT GFLGSAVFL
 ABCC5 LLLVGLLIT EIVRSWSLAI TWALNYRTGV RLRGAILTMW FKKILKLN1 KEKSIGELIN ICSDNGQMF

ABCC11 VFLPLAYWTR MAVKAQHHTS EVSDQIRRTV SEVLTCIKLI KMYTWEKPA KIILEDRLRKE RKLLEKGCLV QSLTSITLFI IPTVATAVW LIHTSLKLKL TASMAFSMLA
 ABCC12 FIPVQMFPAK LNSAFRRSAI LVTDRKVQTM NEFLTCIRL KMYAWEKSP NTIDDIRRE RKLLEKAGFV QSGNSALAP1 VSTIAVVLTL SCHILLRKL TAPVAFSMLA
 ABCC5 FYPAMHFAZR LTAYFRKCV AATDERVQK1 NEVLTYK1 KEVQKIREE RRILEKAGYF QGITYGVAPI VVIAVSVTF SVHMTLGFDL TAAQAFTVV

ABCC11 SLNLLRISVF FVPIAVKGLT NSKSAVMNRFK KFFLQESPWF YVQTLQDPSK ALVFEATLS WQ OT CPGIV NGAL EL . . . ERNGH ASEGMTRPRD
 ABCC12 MFVNWKESIA ILPFSIKAMA EANVSLRRMK KILIDKSPS YITQPEDPDT VILLANATLT WEHEASRKST PKKLQ NQKR HLCKQKSEA YSERSPPAKG
 ABCC5 VENSMTPALK VTPFSVSKLS EASVAVDRFK SFLMEEVHM IKNKPSPHI KIEMKNATLA WDSHSSSION SPKLTPKMK DKRASRGKKE KVRLQRTEH QAVLAEQKGH

ABCC11 AL G PEEEGNS LGPEL HKINLVVSKG MMLGVGCNTG SGKSSLLSAI LEMMLLEGS VGVQSLAVY PQQAWIVSGN IRENILMGA YD KA
 ABCC12 AT G PEEQSDS LKSVL HSISFVVRKG KILGIGCNGV SGKSSLLAAL LGQWQLOQGV VAVNGTLAVY SQQAWIFHGN VRENILFGEK YDHQRYQHTV
 ABCC5 LLLDSDRPS PEEEEGRHII LGHLRLQRTL HSIDLEQEG KLVGICGSVG SGKTSLLSAI LGQWMLLEGS IAISGTFATVY AQQAWILNAT LRDNILFGEK YDEERYNSVL

ABCC11 RTPGACCLD MVPFTACLOI GERGLNLSSG QKQRISSLARA VYSDRQIYLL DDPLSAVDAH VGKHIFEECI KKLRLGKTVV LVTHQLOQYLE FCQGQILLEN GKICENGTHS
 ABCC12 RVCGQJQDLS NLPGDITEI GERGLNLSSG ORQRISSLARA VYSDRQIYLL DDPLSAVDAH VGKHIFEECI KKLRLGKTVV LVTHQLOQYLE SCDEVILLED GEICEKGTHK
 ABCC5 NSCCRLRFDLA ILPSSDLTEI GERGLNLSSG QRQRISSLARA LYSDRSIYLL DDPLSAVDAH VGNHIFNSAI RIKHLKSKTVL FVTHQLOQYLV DCDEVIFMKE GCITERGTHE

ABCC11 ELMQKKRYA QLIQNM H KERAT SDMLQDTAKI AEKPKE . SQ ALATSLEESL NGNAPEHOL TOEEEMEEGS LSWRVYHYI QAAGGYMVSC
 ABCC12 ELMEEERGRYA KLIHNLRGLO FDKEPHLYNA AMVEAFKESP AEREEDAGII VLAPGNEKDE GKESETGSEF VDTKVPEHOL IOTESPQEGT VTWKTYHTYI KASGGYLLSL
 ABCC5 ELMNNGDYA TIFNNUL .LG ETPPVEINSK KETSGSQRKS QDKGPKTGSV KKEKAVKPEE G QL VQLEEKGQGS VPWSVYGVYI QAAGGPLAFL

ABCC11 IIFFFTVULV FLTFSFWML SYMLEQSGST NSSRESMGTM ADLGNIAIDNP QLSFXQLYVG LNALLLCVG VCSSGIFTKU TRKASTALHN KLFNKFVRCP MSFFDTIPIG
 ABCC12 FTVELFLIMI GSAAFSNWML GLMLDGSRM TCGPQENRTM CEVGAVLADI QHRYQWVYT ASMVFMLVG VTKGFFVFKT TLMASSSLHD TVDFKLLKSP MSFFDTIPIG
 ABCC5 VIMALFMNV GSTAFSTWML SYWIKQSGSN TTVTRGNETS VS .DSMDNPN HMQYQYASAYA LSWAVMLLK AIRGVVYFKG TLRASSRLHD ELFRILRSP MKFFDTIPIG

ABCC11 RLLNCFAGDL EQDOLLPF SEQFLVLSM VIALLIVSV LSPYILLMGA IIMVICIYF MMFKKAIGVY KRLENYRSRP LFSHILNSLQ GLSSIHVYKG TDFISQFKR
 ABCC12 RLMNRFESKDM DEDYRLPFF AENFLQFFM VFLVILVA VEPAVLIVVA SLAVGFFILL RIFHRGVQEL KKVENVRSRP WETHITSSM Q GLGITHAYKG KESCITY . .
 ABCC5 RLMNRFESKDM DEVDRLPLFO AEMFQVNVL VFFCVMTAG VFPWFVFLAVG PLVILFSVLIH IVSRVLLREL KRLDNITQSP FLSHITSSIQ GLATHAYNK GOEFLHRYQE

ABCC11 LTDQANVYL LFLSSTRMIA IRLIEMTMLV TLAVALVFAF GISSSTPSFK VMANVIVQL ASFQATARI GLETEAQFTA VERILQNMV CVSEAPLME GTSCPQGWQ
 ABCC12 HLL YFNCALRWF A LRDVLMNVL TFTVALLVTL SFSSISTSSK GLSLSYLIQL SGLLQCVVT GTETOQAKTS VELLREVIST CVPECTPLK VGTCPKDWPQ
 ABCC5 LDDDNQAPFF LFTCAMRWL VRLDLTSLIA ITTTGIMIVL MHGQIPPAYA GLAISYAVL TGLFQFTVRL ASETEARTS VERINHYKLT LSLEAPARIK NKAPSPDWPQ

ABCC11 HGEIIFQDHY WKYRDNPTV LHGINLITRG HEVGYVGR T GSGKSSLGMA LFRLVEPMAG RILLGDVIC SIGLEDRSK LSVIPQDPVL LSGTIRFNLD PFDRTHTDQI
 ABCC12 CGEITFRDY MRYRDNPTVL LDSLNTNQs GOTGYVGR T GSGKSSLGMA LFRLVEPMAG T FIFIDEVIC ILSLEDRTK LTVIPQDPVL FVGTVRYNLD PFEISHTDEM
 ABCC5 EGEVTFENAE MRYRNLPLV LKVKSFITK P KEKIGYVGR T GSGKSSLGMA LFRLVEPMAG CIKIDGVRS DIGLADIRSK LSIIQPEPVL FSGTVRSNLD PENQYTEDQI

ABCC11 WDALERFLT KAISKFPKKL HTDVYENGGN %SYGEROLIC TARAVLNNSK IILDEATAS IDMETDTLQ RTIREAFOCG TVLVAIRHVT TVLNCDHILV WNGKVKVEFD
 ABCC12 WQVLERFTMR DTIMKUPEKU QAEVTENGEN %SYGEROLIC VARALLNSK IILDEATAS MDSKTDILVQ NTIKDAFKGC TVLTIAHLN TVLNCDHILV MENGKVIEFD
 ABCC5 WDALERTHMK ECIAQLPLKL ESEVWNGDN %SYGEROLIC TARALLHCK IILDEATAS MDTETDTLQ ETIREAFADC TMLTIAHLH TVLGSDRIMV LAQGVVVEFD

FIGURE 1

q13.3 q13.2 q13.1 q12.1 q12.2 q11.2 q11.1 q11.2 q10.1 q10.2 q10.3 q10.4 q10.5 q10.6 q10.7 q10.8 q10.9 q10.10 q10.11 q10.12 q10.13 q10.14 q10.15 q10.16 q10.17 q10.18 q10.19 q10.20 q10.21 q10.22 q10.23 q10.24

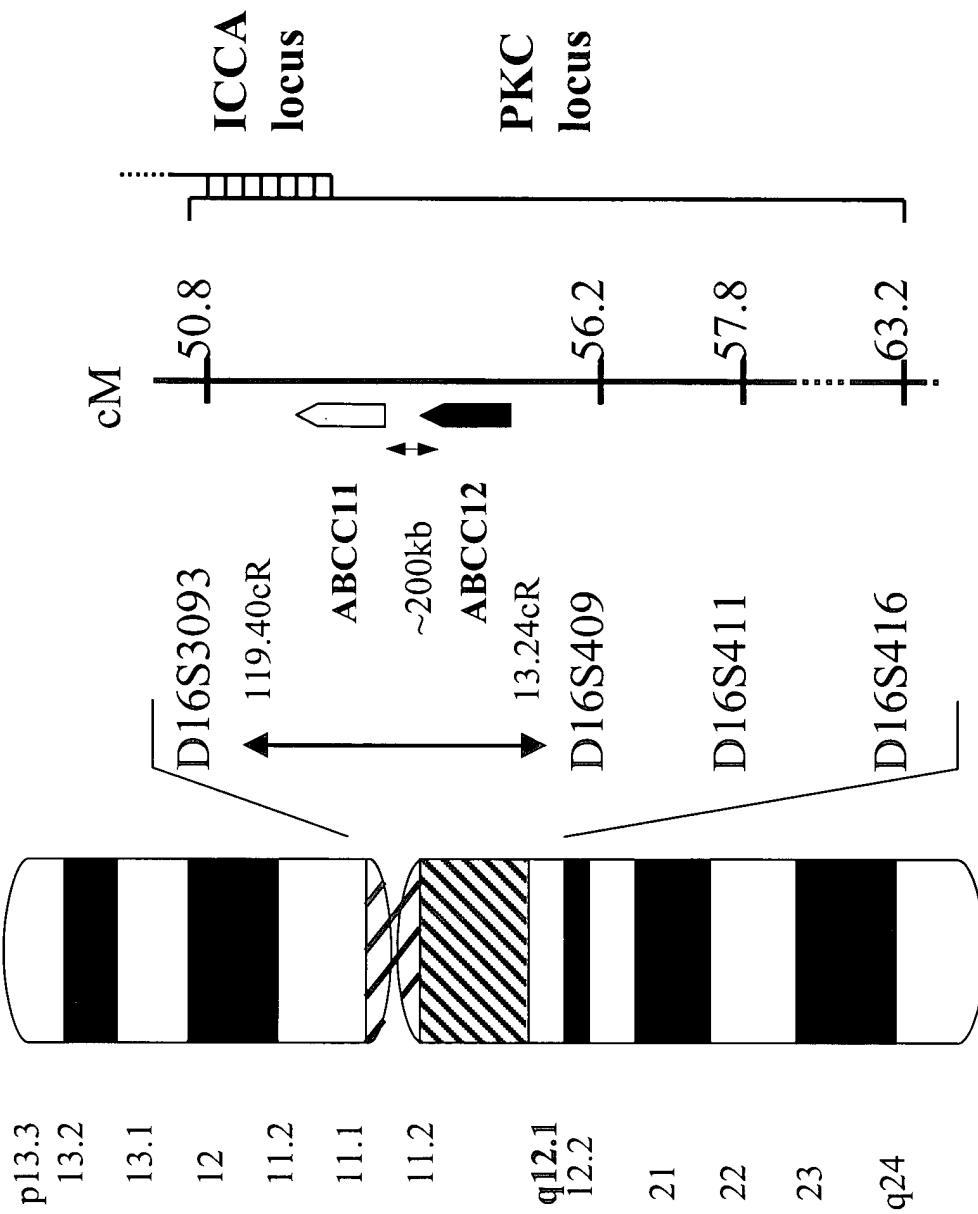


FIGURE 2

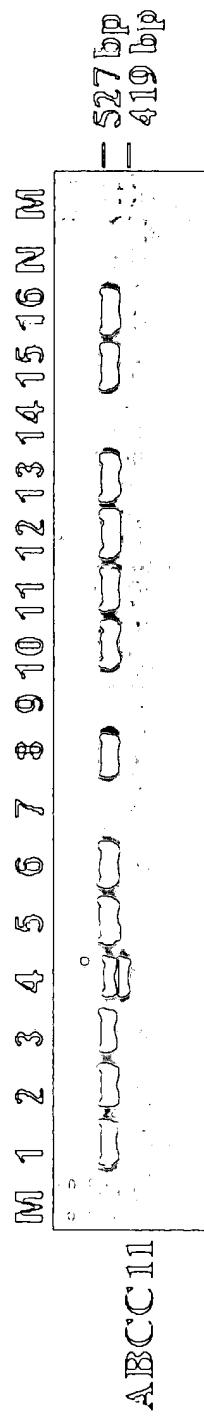


FIGURE 3

ATG 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

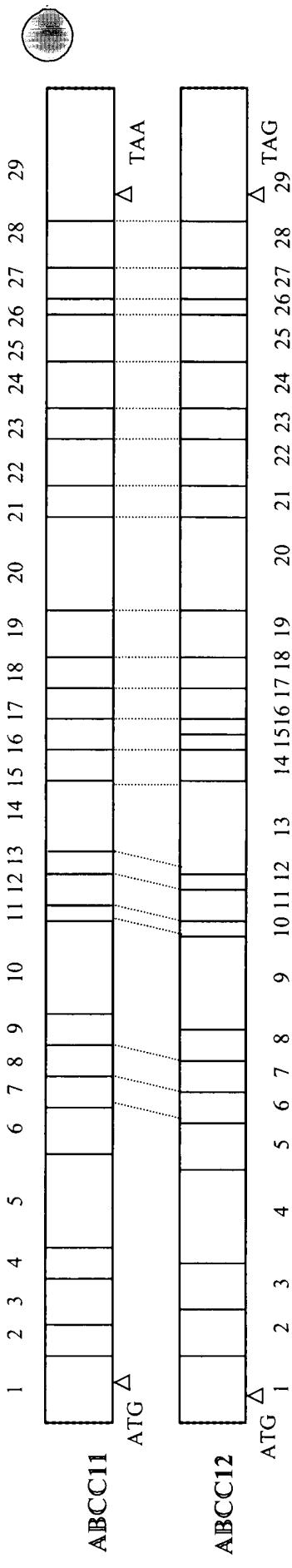


FIGURE 4

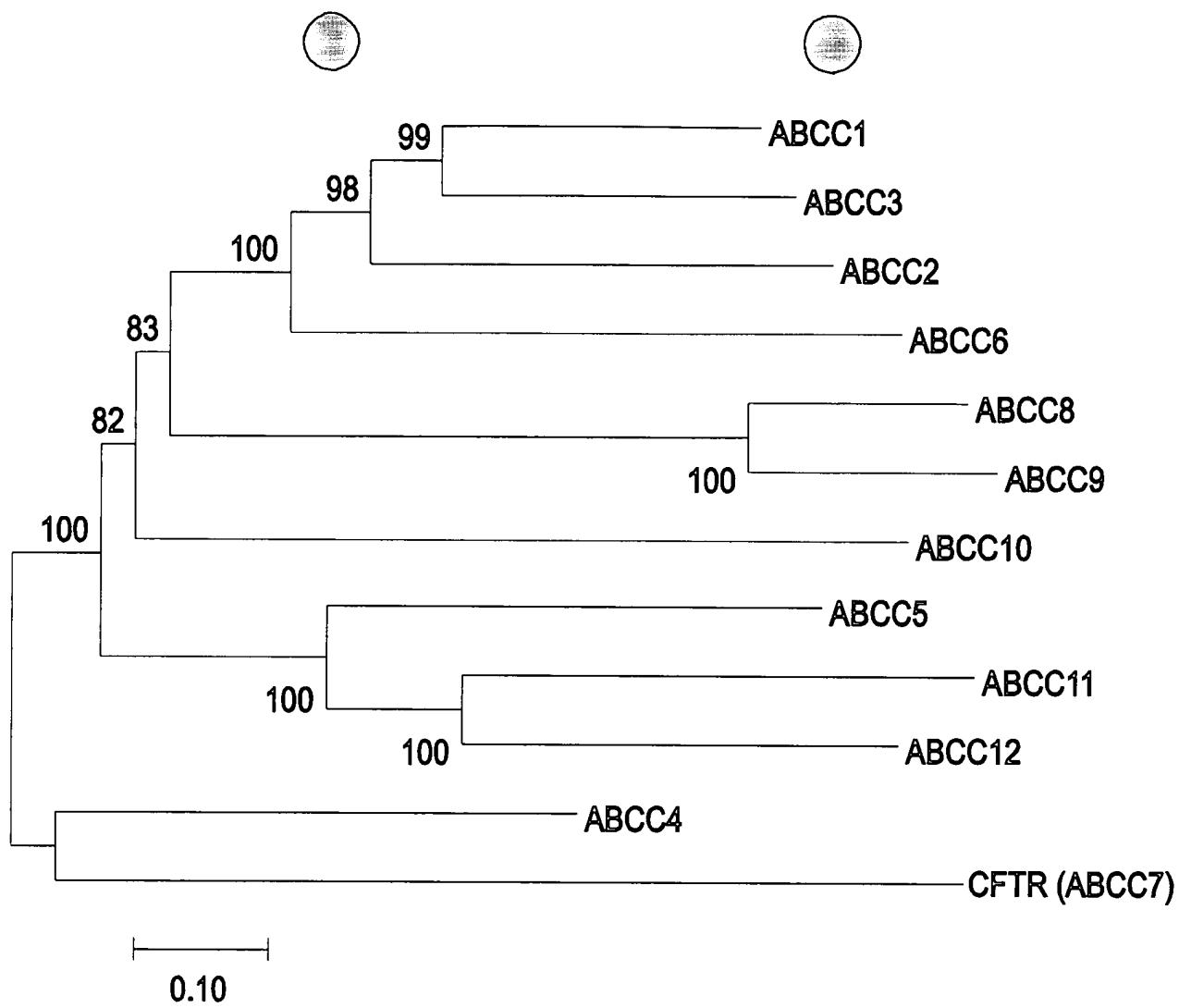


Figure 5